

CLEAN VERSION OF CLAIMS

Claim 22 A stringed musical instrument comprising:

- a body,
- a neck extending outwardly from said body,
- a head located opposite said body on said neck,
- at least one string extending from said body to said head, said at least one string
 - having a first end and a second end,
- a first mechanism on said head for supporting and forming a first critical point
 - for said at least one string,
- a second mechanism on said body for supporting and forming a second critical point for said at least one string,
- said first end secured to said head and said second end secured to said body,
- and
- a tuning adjustment device comprising:
 - a first portion to tension said at least one string to playing pitch from an untensioned condition to at least one pitch tuning quickly, and
 - a second portion to further tension said at least one string at playing pitch,
- wherein said second portion is in close proximity to said first portion,

Application: 09/760,908
Attorney Michael G. Smith

Examiner Lockett

wherein said tuning adjustment device is located on said body, and said tuning adjustment device further comprising:
at least one anchor connected with said second end, and
at least one third portion for pivoting said at least one anchor about an axis that is transverse to the axis of said at least one string in a first direction to tension said at least one string to said at least one pitch tuning.

Claim 23 A stringed musical instrument comprising:

a body,
a neck extending outwardly from said body,
a head located opposite said body on said neck,
at least one string extending from said body to said head, said at least one string having a first end and a second end,
a first mechanism on said head for supporting and forming a first critical point for said at least one string,
a second mechanism on said body for supporting and forming a second critical point for said at least one string,
said first end secured to said head and said second end secured to said body,
and
a tuning adjustment device comprising:
a first portion to tension said at least one string to playing pitch from an untensioned condition to at least one pitch tuning quickly, and
a second portion to further tension said at least one string at playing pitch,
wherein said second portion is in close proximity to said first portion,

Application: 09/760,908
Attorney Michael G. Smith

Examiner Lockett

wherein said tuning adjustment device is located on said head, and said tuning adjustment device further comprises:
at least one anchor connected with said first end, and
at least one third portion for pivoting said at least one anchor about an axis that is transverse to the axis of said at least one string in a first direction to tension said at least one string to said at least one pitch tuning.

Claim 24 Apparatus of claim 23 wherein said tuning adjustment device further comprises at least one lock to impede pivoting said at least one third portion in a second direction.

Claim 25 Apparatus of claim 24 wherein said at least one lock allows pivoting of said at least one third portion in said first direction while impeding pivoting of said at least one third portion in said second direction.

Claim 26 Apparatus of claim 24 wherein said at least one lock further comprises a plurality of spaced-apart stops to impede pivoting said at least one third portion in said second direction.

Claim 27 Apparatus of claim 24 wherein said at least one lock further comprises at least one tooth formed on said at least one third portion that cooperates with at least one tooth to impede pivoting said at least one third portion in said second direction.

Application: 09/760,908
Attorney Michael G. Smith

Examiner Lockett

Claim 28 Apparatus of claim 23 wherein said second portion further comprises at least one tuner to vary the tension of said at least one string while said at least one third portion is in a locked position.

Claim 29 Apparatus of claim 28 wherein said at least one tuner further comprises a thumbscrew.

Claim 30 Apparatus of claim 28 wherein said at least one tuner further comprises a continuously variable element to continuously vary the tension in said at least one string.

Claim 31 Apparatus of claim 28 wherein said at least one tuner adjusts the position of said anchor.

Claim 32 Apparatus of claim 23 further comprising:

a nut, and

a bridge,

wherein said nut comprises said first critical point and said bridge comprises said second critical point,

wherein said at least one anchor is adjacent said nut opposite said second critical point.

Application: 09/760,908
Attorney Michael G. Smith

Examiner Lockett

Claim 33 Apparatus of claim 23 further comprising:

a nut, and

a bridge,

wherein said nut further comprises said first critical point and said bridge
further comprises said second critical point,

wherein said a least one anchor further comprises said nut opposite said second
critical point.

Claim 34 Apparatus of claim 23 wherein said at least one third portion further
comprises an L-shaped elongated member.

Claim 35 Apparatus of claim 22 further comprising:

a nut, and

at least one bridge,

wherein said nut further comprises said first critical point and said at least one
bridge further comprises said second critical point for said at least one
string,

wherein said at least one anchor is adjacent said at least one bridge opposite
said first critical point and moveable therewith about said axis that is
transverse to said axis of said at least one string.

Claim 36 Apparatus of claim 22 further comprises:

a nut, and

at least one bridge,

said nut further comprises said first critical point and said at least one bridge
further comprises said second critical point for said at least one string,
said bridge having a surface extending generally in the direction of said

Application: 09/760,908
Attorney Michael G. Smith

Examiner Lockett

axis of said at least one string, wherein said at least one anchor further comprises said at least one bridge opposite said first critical point.

Claim 37 Apparatus of claim 36 wherein said second critical point has at least one location on said at least one bridge, said at least one bridge having a curved surface, said at least one bridge being pivotably displaceable about said axis that is transverse to the axis of said at least one string, said second critical point travels a critical distance on said curved surface of said at least one bridge changing said at least one location of said second critical point establishing harmonic tuning at said playing pitch as said at least one bridge is pivoted by tensioning said at least one string to said at least one pitch tuning.

Claim 38 Apparatus of claim 37 wherein said tuning adjustment device further comprises at least one lock to impede pivoting said at least one third portion in a second direction.

Claim 39 Apparatus of claim 38 wherein said at least one lock allows pivoting of said at least one third portion in said first direction while impeding pivoting of said at least one third portion in said second direction.

Claim 40 Apparatus of claim 32 wherein said at least one third portion further comprises an elongated lever.

Claim 41 Apparatus of claim 39 wherein said tuning adjustment device further comprises a tremolo.

Application: 09/760,908
Attorney Michael G. Smith

Examiner Lockett

Claim 42 Apparatus of claim 37 wherein said tuning adjustment device further comprises a fulcrum tremolo.

Claim 43 Apparatus of claim 22 wherein said tuning adjustment device further comprises a macro-tuner.

Application: 09/760,908
Attorney Michael G. Smith

Examiner Lockett

Claim 44 A stringed musical instrument comprising:

- a body,
- a neck extending outwardly from said body,
- a head located opposite said body on said neck,
- at least one string extending from said body to said head,
- said at least one string having a first end and a second end,
- a first mechanism on said head to support and form a first critical point for said
 - at least one string,
- a second mechanism on said body to support and form a second critical point
 - for said at least one string,
- said first end secured to said head and said second end secured to said body,
- at least one string anchor located opposite said body on said head, and
- a tuning adjustment device combining
 - a first portion to quickly tension said at least one string to playing pitch
 - from an untensioned condition at said at least one of several pitch tunings,
 - a second portion to fine tune said at least one string at said playing pitch,
 - and
 - at least one gripping portion intermediate said nut and said at least one string anchor for gripping said at least one string,
- wherein said first portion, said second portion, and said at least one gripping portion and are in close proximity to each other.

Application: 09/760,908
Attorney Michael G. Smith

Examiner Lockett

Claim 45 A stringed musical instrument comprising:

- a body,
- a neck extending outwardly from said body,
- a fulcrum tremolo,
- a head located opposite said body on said neck,
- at least one string extending from said body to said head, said at least one string having a first end and a second end, a first mechanism on said head to support and form a first critical point for said at least one string,
- a second mechanism on said fulcrum tremolo to support and form a second critical point for said at least one string,
- said first end secured to said head and said second end secured to said fulcrum tremolo,
- said fulcrum tremolo further comprising:
 - a bearing portion to adjustably mount said fulcrum tremolo on said body for pivotal displacement, said bearing portion further comprising at least one bearing assembly, said bearing assembly further comprising at least a portion of a ball bearing surface.

Claim 46 Apparatus of claim 45 wherein said bearing assembly further comprises at least one shaft connected to said fulcrum tremolo.

Application: 09/760,908
Attorney Michael G. Smith

Examiner Lockett